

**REMARKS**

The Applicant thanks the Examiner for the thorough consideration given the present application. Claims 25-48 are pending. Claims 1-24 were previously canceled. Claim 25 is amended. Claims 25, 42 and 45 are independent. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

**Allowable Subject Matter**

The Examiner states that:

Claims 36-38 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims; and

Claims 42-48 are allowed.

The Applicant appreciates the Examiner's early indication of allowable subject matter. As indicated below, rather than rewriting any of objected to claims 36-38 in independent form at this time, instead, independent claim 25 is amended herein to recite a novel combination of elements not suggested by the reference cited by the Examiner.

Therefore, independent claim 25 is in condition for allowance.

**Claim for Priority**

It is gratefully acknowledged that the Examiner has recognized the Applicant's claim for foreign priority.

**Acknowledgement of Information Disclosure Statement**

It is gratefully acknowledged that the Examiner has acknowledged the Information Disclosure Statement filed on March 12, 2002.

**Rejection Under 35 U.S.C. §102(b)**

Claims 25-35 and 39-41 stand rejected under 35 U.S.C. §102(b) as being anticipated by Jitaru (U.S. 5,973,923). This rejection is respectfully traversed.

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the instant application, independent claim 25 is amended herein to recite a combination of elements directed to a printed circuit board (PCB) assembly including a second component set having heat dissipating and magnetic properties.

The basis for this amendment may be found throughout the specification and in particular on page 6, lines 26 and 27 of the specification as filed. It is respectfully submitted that nowhere in Jitaru (U.S. 5,973,923) is there disclosed a printed circuit board assembly possessing such a feature as set forth in independent claim 25.

Care must be taken not to confuse the terminology of the application in suit and the terminology of Jitaru. In the application in suit, components are described as being either heat generating components or heat dissipating components. Heat generating components are those components that naturally create a significant amount of heat by virtue of their normal operation. These heat generating components must transfer this heat away from the component in order to avoid overheating which may result in failure of the device. Furthermore, in the application in suit, heat dissipating components are those components

that generate little or no heat whatsoever and heat may be transferred to these components in order to spread the heat that is created elsewhere in the circuit more evenly over the entire printed circuit board assembly. In the application in suit, heat is transferred from the heat generating components to the heat dissipating components.

By contrast, Jitaru merely describes a number of components that generate heat which must be transferred away from the components. These components are described as power-dissipating components in Jitaru. Jitaru discusses how these power-dissipating components may be placed on pads and heat may be transferred away from the power-dissipating components through vias to the other side of the board and then onward to a metal base-plate (Column 1, lines 49 to 55 inclusive). Therefore, the power-dissipating components in Jitaru are described solely as transmitters of heat and not receivers of heat as is the case in the application in suit. This is an important distinction between the terminologies used throughout the two specifications.

Therefore, it is respectfully submitted that Jitaru does not disclose a second component set having heat dissipating and magnetic properties within the meaning of the application in suit. Jitaru does disclose having magnetic components but it is clear from the Jitaru specification that the heat is extracted from these magnetic components to the base-plate (Column 3, lines 14 to 19 inclusive). At no stage does Jitaru discuss transferring heat to the magnetic components.

Claim 25 is now directed towards a PCB assembly in which heat from the heat generating components is transferred to the heat dissipating magnetic components. By having such a feature, the requirement for further heat sinks and the like may be minimized if not

avoided altogether and the magnetic components may be operated at substantially optimum thermal operating conditions. In Jitaru, heat is transferred away from the magnetic components. As Jitaru does not disclose a PCB assembly in which the heat is transferred to the heat-dissipating magnetic components, claim 25 is therefore novel in light of Jitaru.

It is respectfully submitted that as claim 25 is novel in light of Jitaru, claims 26 to 41 inclusive are also deemed novel by virtue of their dependence on novel independent claim 25.

For reasons of completeness, it is further submitted that claim 25 is non-obvious in light of Jitaru. Claim 25 is directed towards a PCB assembly in which there are provided two sets of components, a first heat generating set and a second heat dissipating set thermally linked together, the second set of components comprising magnetic components. Heat is transferred from the heat generating components of the first component set to the magnetic components of the second component set. This allows the magnetic components to operate at substantially optimum thermal operating conditions (page 4, lines 17-19). Jitaru, on the other hand does not disclose such a PCB assembly. Jitaru describes a PCB assembly having magnetic components in which heat is transferred away from the magnetic components. Nowhere in Jitaru does the Patentee discuss transferring heat towards the magnetic components and there is nothing in Jitaru to suggest providing such a feature. Jitaru is directed towards cooling the magnetic components rather than heating the magnetic components. The skilled person, with knowledge of Jitaru would not be led to provide a PCB assembly in which heat is transferred to the heat-dissipating magnetic components as Jitaru teaches the direct opposite to this and attempts to remove heat from the magnetic

components (column 3, lines 14 to 19 inclusive). Jitaru therefore teaches away from the present invention. It is respectfully submitted that claim 25 is non-obvious in light of Jitaru.

Claims 26 to 41 inclusive are also deemed non-obvious in light of their dependency, either directly or indirectly on non-obvious independent claim 25.

In view of the amendments and arguments described above, the Applicant respectfully submits that the combination of elements as set forth in independent claim 25 is not disclosed or made obvious by the prior art of record, including Jitaru.

Therefore, independent claim 25 is in condition for allowance. Further, dependent claims 26-41 are in condition for allowance due to their dependency from allowable independent claims, or due to the additional novel features set forth therein.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. §102ba) are respectfully requested.

All claims of this application are now in condition for allowance.

**CONCLUSION**

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

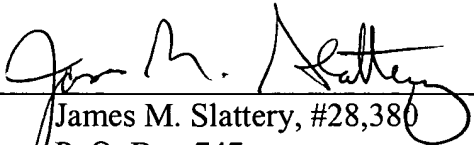
Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of \$475 is attached hereto.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 205-8000.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By   
James M. Slattery, #28,380  
P. O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000

JMS:CTT/ags

